## UNITED STATES PATENT AND TRADEMARK OFFICE

# PATENT EXAMINING OPERATIONS

Applicant:

Seiji Yamashita

Group Art Unit:

1741

Serial No.:

09/507,212

Examiner:

Tran, T

Filed:

February 18, 2000

Docket No.:

P 00 572.006

Title: METHOD AND APPARATUS FOR REDUCING CONTAMINATION IN A PLASTIC CONTAINER

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted by facsimile to: No. 1-703-872-9311. Commissioner for Patents, Washington, DC 20231 on March

Birdwell, Janke & Durando, PLC 900 SW Fifth Avenue, Suite 1925 Portland, OR 97204

# REQUEST FOR RECONSIDERATION

FAX RECEIVED

Box: AF - Non-Fee Amendment

Commissioner for Patents Washington, D.C. 20231

MAR 1 0 2003

GROUP 1700

Greetings:

This Request for Reconsideration is being filed in response to the Office Action of January 10, 2003.

Claims 10-13 and 23 remained rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,235,358 to Goto.

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## Consisting essentially of

According to MPEP 2111.03, the "transitional phrase 'consisting essentially of" limits the scope of a claim to the specified materials and steps 'and those that do not <u>materially</u> affect the <u>basic</u> and <u>novel</u> characteristic(s)' of the claimed invention. *In re* Hertz, 537 F.2d 549, 551-552 190 USPQ 461, 463 (CCPA 1976)."

In claim 10, Applicant recites "the coating consisting essentially of titanium dioxide so as to attract water molecules to produce a hydrophilic surface on the container for facilitating cleaning the container." According to MPEP 2111.03 mentioned above, items that "materially affect the basic and novel characteristic(s)" of the claimed invention do not fall within the scope of the claim. MPEP 2111.03 also states that "[i]f an applicant contends that additional steps or materials are excluded by the recitation of 'consisting essentially of,' applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. *In re Lajarte*, 337 F.2d 870, 872, 143 USPQ 256 (CCPA 1964)."

As evidenced by the Declaration of Professor Philip R. Watson, Professor of Chemistry at Oregon State University, the coating in Goto includes the added ingredient of epoxy resin, which materially affects the basic and novel characteristics of the claimed invention. Professor Watson stated in his Declaration that "the coating disclosed in Goto would not provide titanium dioxide molecules in a form that makes them available to form a hydrophilic surface on a container to facilitate cleaning the container."

In In re Lajarate the applicant claimed an "electrically insulating glass having a composition consisting essentially of," and listed the ingredients used to form the glass. The

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Examiner rejected the claim citing U.S. Patent No. 2,443,142 to Lyle, which contained the claimed ingredients plus the additional ingredients of sulfur and carbon. The board had argued the following:

Lyle discloses that a very small amount of carbon, less than ½ of 1%, is employed in the preparation of his glass composition A. In our opinion it would not be expected that the presence of this small amount of carbon would substantially alter the electrical resistance of the glass composition. Claim 11 which recites 'consisting essentially' the named ingredients does not exclude small amounts of other materials which do not change the essential character of the composition. In our opinion, it must also be considered that some of the charcoal employed by Lyle may be lost due to atmospheric oxidation during the preparation of the final glass. In the absence of a factual showing of a critical difference in the electrical resistance of applicant's glass composition compared to that of the compositions taught by Lyle, we are of the view that claim 11 does not patentably distinguish from the reference. (Emphasis added.)

In re Lajarte, 337 F.2d 870, 872, 143 USPQ 256, 258 (CCPA 1964).

However, in response to this argument, the Court of Custom and Patent Appeals disagreed with the board and stated:

In the total absence of evidence in the record to indicate that the amber glass disclosed by Lyle would be expected to have desirable electrical insulating properties, we can find no justification for placing the burden on applicant to conduct experiments to determine the insulating properties of the colored glass disclosed by Lyle. Although there are only very slight differences between the Lyle composition and that sought to be patented, we cannot assume that these small differences are incapable of causing a difference in properties. Applicant in showing that his glass has basic and novel properties (at least as far as the record is concerned), would appear to have met his burden.

In re Lajarte, 337 F.2d 870, 872, 143 USPQ 256, 259 (CCPA 1964).

In compliance with MPEP 2111.03, Applicant has met the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention by providing evidence that "the coating disclosed in Goto would not

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provide titanium dioxide molecules in a form that makes them available to form a hydrophilic surface on a container to facilitate cleaning the container." However, the Office Action does not give this evidence sufficient weight.

### The Office Action stated that:

[i]n the Declaration, received on October 30, 2002, Applicant provides various opinions to state that Goto's coating layer is different from the presently claimed invention. However, merely stating one's opinions cannot be scientifically founded to show the novelty of the present invention over the prior art. It is recommended that Applicant provide concrete scientific evidence, such as experimental data including comparative examples, to show different results that are patentably distinguishable from the prior art.

However, this requirement contradicts the Court of Custom and Patent Appeals, which stated in *In re Lajarte*, 337 F.2d 870, 143 USPQ 256, 258 (CCPA 1964) that "we can find no justification for placing the burden on applicant to conduct experiments to determine the insulating properties of the colored glass disclosed by Lyle." That is there is no justification for placing the burden on applicant to conduct experiments to determine the hydrophilic properties of the Goto reference.

Moreover, from the above statement in the Office Action, it appears that there is confusion between an opinion statement and a factual statement. Professor Watson's statement that "the coating disclosed in Goto would not provide titanium dioxide molecules in a form that makes them available to form a hydrophilic surface on a container to facilitate cleaning the container" is a factual statement.

This is similar to *In re Alton*, 76 F.3d 1168 (Fed. Cir. 1996) in which a declaration was provided by an expert that commented on the characteristics of a chemical composition in regard

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to a 35 U.S.C. §112(1) rejection. The F deral Circuit stated:

...the examiner interpreted the Wall declaration as offering opinion evidence, rather than factual evidence.... The Wall declaration's assertion that "[m]odifying the residue at position 81 would have no effect on [disulfide bridge formation] because neither [aspragine] nor lysine can participate in disulfide bridge formation" is a factual statement.... Dr. Wall's use of the words "it is my opinion" does not transform the factual statements contained in the declaration into opinion testimony. (Emphasis added)

In re Alton, 76 F.3d at 1174-75.

Professor Watson's statements regarding the Goto reference are factual statements that must be given weight. MPEP 716.01

Applicant has surpassed his burden by providing <u>factual</u> evidence from a Professor of Chemistry at Oregon State University that "the coating disclosed in Goto <u>would not</u> provide titanium dioxide molecules in a form that makes them available to form a hydrophilic surface on a container to facilitate cleaning the container. There is no evidence of record to the contrary. The foregoing is sufficient to overcome the rejection based in the Goto reference.

## Response to further arguments in the Office Action

In regard to the argument in the Office Action that "Goto's coating layer would also inherently attract atmospheric water as presently claimed," Applicant has provided factual evidence that this statement is incorrect. (See the Declaration)

The Office Action also stated that "it has been well settled that limitations on the properties of materials worked upon or functional limitations have been held to have insignificant patentable weight in an apparatus claim. See MPEP 2114-2115."

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MPEP 2114 states that "apparatus claims must be structurally distinguishable from the prior art." However, as explained by the Federal Circuit, functional language <u>can</u> provide this structural distinction. For example, in *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1362 (Fed.Cir. 1999), the Federal Circuit stated in regard to claim language, "[t]he functional language is, of course, an additional limitation in the claim."

MPEP 2115 states "material or article worked upon does not limit apparatus claims."

However, the claims do not contain references to the materials or articles worked upon.

Claim 19 is allowable for the reasons stated above.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely,

Deborah Blyveis

Birdwell, Janke & Durando, PLC

Helman Blyneis

Reg. No. 47,337

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In re De Lajarte

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52 OCPA 826

Court of Customs and Patent Appeals In re DE LAJARTE

Appl. No. 7287 Decided Nov. 5, 1964

### PATENTS

Claims—"Comprising," "Consisting," etc. (§ 20.30)

Patentability-Composition of matter (§ 51.30)

(\$51.30)

Where claims are directed to glass composition and applicant contends that two modifying components in reference composition are excluded by claim's words "consisting essentially of," applicant has burden of showing the basic or novel characteristics of his glass, i.e., of showing that introduction of these two components would materially change characteristics of applicant's glass; burden is met by pointing out in specification and claims the great increase in desired properties resulting from his glass.

# 2. Patentability—Composition of mat-ter (§ 51.30)

Pleading and practice in Patent Office
—In general (§ 54.1)

In total absence of evidence to in-In total absence of evidence to indicate that glass disclosed by reference would be expected to have desirable insulating properties, there is no justification for placing burden on applicant to conduct experiments to determine insulating properties of such glass; it cannot be assumed that small differences between reference's glass and applicant's glass are incapable of causing a difference in properties; by showing that his glass has basic and novel properties, applicant has met his burden.

#### 3. Patentability--Composition of matter (\$ 51.80)

Specification—Sufficiency of disclosure (§ 62.7)

Cases cited in support of position that, in order for range claimed by applicant to be critical, range must be disclosed as being critical, are not applicable in instant case since issue involved is anticipation under 85 U.S.C. 102, not obviousness.

## Particular patents-Glass

De Lajarte, Glass Compositions, claims 5 and 11 of application allowed.

Appeal from Board of Appeals of the Patent Office. Application for patent of Stephane Dufaure De Lajarte, Serial No. 669,-956, filed July 5, 1957; Patent Office Division 56. From decision rejecting claims 5 and 11, applicant appeals. Reversed.

JOHN L. SEYMOUB and BAUER & SEY MOUR, both of New York, N.Y., for appellant.

CLARENCE W. Moore (George C. Rosming of counsel) for Commissioner of Patents.

efore Rich, Acting Chief Judge Martin, Smirh, and Almond, Asso-ciate Judges, and Kirkpathick, Judge. Before

ALMOND, Judge.

Stephane Dufaure Ds Lajarte appeals from a decision of the Board of Appeals affirming the examiner's rejection of all of the claims in appellant's application 1 for a glass composition.

The rejected claims 5 and 11 read as

5. Electrically insulating glass having a composition consisting essentially of the following constituents in per cent by weight

SiQ,	6.8
m ^	_
B,O,	
<u>A</u> l <sub>1</sub> O <sub>2</sub>	8.0
Fe <sub>s</sub> O <sub>s</sub>	1.6
	0.6
	9
	4
BaO	ŝ
Na <sub>2</sub> O	
K.O	

said glass having resistance to perforation equivalent to at least about 86 KV in a plate 500 x 500 x 7 mm., at 200° C., under 50 cycle alternating current.

11. Electrically resistant glass, in particular for glass insulators, having a resistance to perforation equivalent to at least about 20 K.V. in a plate 500 x 500 x 7 mm at 200° C., under sine wave current of 50 periods, and having a composition consisting espectically of sentially of

SiO<sub>3</sub> + Al<sub>2</sub>O<sub>4</sub> 68-75 wt. per-of which Al<sub>2</sub>O<sub>5</sub> is al-ways present and is lower than 8%

Na. + K.O of which K.O is 12-15% 1- 4% and Na<sub>2</sub>O is not

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11% when Al<sub>2</sub>O<sub>3</sub> is less than 4%

and Na<sub>2</sub>O is not OVEL

13% when Al<sub>2</sub>O<sub>2</sub> is greater than

members from the Froop consisting of the consis BaO are present

Fand CaO is in the Fange
Metal oxides of the Trope of B.O., Fes.O., Trop., Pho., Mro., ZnO + fluor-

7-12%

0- 5% ne compounds

Appellant indicates that the intended of his glass is as an electrical inappeliant indicates that the intended is of his glass is as an electrical indicator. Glass suitable for such use must be high resistance to perforation by provoltage electric current, particular—then the glass is hot. Appellant states insulator glass must also maintain directivity at high temperatures, have on the conditions use and be free of devitrified or crysime particles. He alleges that a glass must also maintain the particles of devitrified or crysime particles. He alleges that a glass may all of the desired properties can obtained by making a glass having the appearance of the claims. It is be seen from 11 that a rather insight relationship between composition of Alos present must be below dictor not until the exact amount of alos is determined can the limits on the limits of the l to and Naso be set. The amount of the major of the major of the set. The amount of the major of lished.

bilished.

At his application, appellant compares that is described as "a prior art glass has a standard composition for electrical relators" with glasses which conform the composition set forth in the lams. The prior art glass contains of SiO., 1.5% Al.O., 14.5% NgO, 1.3% KsO, 11.8% CaO, 1.5% MgO, 1.3% M Tan 11% Na.O and less than 1% K.O.

The prior art glass had a resistance to deforation of 14 KV in a plate 500 x

The x 7mm. at 200° C., under 50 cycle froating current. The three glasses wing compositions according to the lams have resistances of 24.5 KV, 31 and 36 KV.

The sole reference is:

Lyle 2.443.142 June 8 1948

Lyle 2,448,142

June 8, 1948

<sup>\*</sup>United States Senior Judge for the Eastern District of Fennsylvania, designated to participate in place of Chief Judge Worley, pursuant to provisions of Section 294(d), Title 28, United States Code.

<sup>1</sup> Serial No. 669,956, filed July 5, 1957, or "Glass Compositions,"

Division 56. From decision rejectification 5 and 11, applicant appeals. versed.

JOHN L. SEYMOUR and BAUER & SEE MOUR, both of New York, N.Y., is appellant. CLARENCE W. MOORE (GEORGE C. Ko MING of counsel) for Commissions of Patents.

efore RICH, Acting Chief Judge MARTIN, SMITH, and ALMOND, Associate Judges, and KIBEPATRIE Judge. Chief Judge Before

ALMOND, Judge.

Stephane Dufaure De Lajarte appears from a decision of the Board of Appearaffirming the examiner's rejection of the claims in appellant's application.

The rejected claims 5 and 11 read follows:

 Electrically insulating glass having a composition consisting essentially of the following constituents. per cent by weight

SiO. B.O. Al-O. Fe-O. MnO BaO

said glass having resistance to perforation equivalent to at least about 86 KV in a plate 500 x 500 x mm., at 200° C., under 50 cycle atternating current.

11. Electrically resistant glass, policular for glass insulators, having resistance to perforation equivalent places about 20 K.V. in a place of the perforation of the perforation of the performance of the periods, and the periods, and the periods of the period

SiO: + ALO: of which ALO: is al-ways present and is lower than 8% 68-75 wt.

Na. + K.O 12-15% of which KO is 1- 4%

"United States Senior Judge for Eastern District of Pennsylvania, designated to participate in place of Chig Judge Worley, pursuant to provisions Section 294(d), Title 28, United State Code.

1 Serial No. 669,956, filed July 5, or "Glass Compositions."

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In re De Lajarte

and Na<sub>4</sub>O is not

11% when Al-O, is less than 4%

and Na<sub>2</sub>O is not **OVET** 

13% when Al-O. is greater than

members from the group consisting of CaO, MgO, and BaO 12-16% of which CaO and BaO are present

and CaO is in the range

7-12%

Metal oxides of the type of B<sub>1</sub>O<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, TiO<sub>3</sub>, PbO, MnO, ZnO + fluorine compounds 0- 5%

Appellant indicates that the intended use of his glass is as an electrical in-sulator. Glass suitable for such use must use of the glass is as an electrical insulator. Glass suitable for such use must have high resistance to perforation by high-voltage electric current, particularly when the glass is hot. Appellant states that insulator glass must also maintain its resistivity at high temperatures, have good chemical durability under conditions of use and be free of devitrified or crystalline particles. He alleges that a glass having all of the desired properties can be obtained by making a glass having the composition set forth in the claims. It can be seen from 11 that a rather intricate relationship between components is specified. For example, the amount of Al<sub>2</sub>O<sub>2</sub> present must be below 8% but not until the exact amount of Al<sub>2</sub>O<sub>3</sub> is determined can the limits on SiO<sub>3</sub> and Na<sub>2</sub>O be set. The amount of K<sub>2</sub>O may vary from 1 to 4% but the permissible range of K<sub>2</sub>O is not determined until the amount of Na<sub>2</sub>O is established. tablished.

tablished. In his application, appellant compares what is described as "a prior art glass of a standard composition for electrical insulators" with glasses which conform to the composition set forth in the claims. The prior art glass contains 69% SiOs, 1.5% Al<sub>2</sub>Os, 14.5% Na<sub>2</sub>O, 0.3% KaO, 11.3% CaO, 1.5% MgO, 1.3% Fe<sub>2</sub>Os, and 0.6% MnO. It can be seen that this composition varies from that set forth in claim 11 in containing more set forth in claim 11 in containing more than 11% Na<sub>2</sub>O and less than 1% K<sub>2</sub>O. than 11% Na<sub>2</sub>O and less than 1% K<sub>2</sub>O. The prior art glass had a resistance to perforation of 14 KV in a plate 500 x 500 x 7mm., at 200° C., under 50 cycle alternating current. The three glasses having compositions according to the claims have resistances of 24.5 KV, 31 KV, and 36 KV.

The sole reference is:

Tota 2442149 Ivan 8 1948

Lyle 2,443,142

June 8, 1948

The stated object of Lyle is to produce an amber glass of pleasing color and good chemical durability. Amber color is obtained by the addition of carbon and sulfur. Lyle states that:

Prior amber glass of the reduced or carbon-sulfur is notoriously unstable and such stability as is attained is often transitory. This is to be expected from the combustibility of the basic coloring materials, carbon and sulfur. Consequently, such glass, which is properly colored when partially melted, may lose color and may blister and foam as melting and fining proceeds and may become unfit for use if held very long at high temperatures. peratures.

To solve this problem, Lyle uses a composition having the following relation: S—2N=K where S is the weight percentage of silica, N is the weight percentage of alkali and K is a constant ranging from 45 to 60. In Table I Lyle sets forth several examples of his amber glass including the following composi-

A	
SiO <sub>2</sub> Al <sub>2</sub> O <sub>3</sub> CaO MgO BaO Na <sub>2</sub> O, K <sub>4</sub> O CaF <sub>2</sub>	70.0% 8.5 7.8 5.2 1.0 12.0 1.0
₩ <b>₽-</b> Ω-	0.041

The above glass was made from a batch having the following composition:

00.0 55.2 79.8 18.8 5.0 8.5 1.0

Lyle states that the percentages of sultur and carbon were omitted from Table I and that sulfur in A was supplied by barytes in the batch.

by harytes in the batch.

The examiner, in his letter of May S, 1958, stated that Lyle "teaches a glass composition consisting essentially of the same oxides and proportions as claimed by applicant, note Table I, composition A \* \* \* \* \* \* \* The examiner contended in the Final Rejection of November 18, 1959 and in his Answer that the claims were directly resdable on the composition of Lyle. This language would seem to indicate that the statutory basis of the rejection is 35 U.S.C. 102. The board,

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however, talked about critical difference which could indicate 108. The solicitor, at oral argument, declared that he did not know what the ground of rejection was and refused to rely upon either 35 U.S.C. 102 or 103 alone. Apparently, then, both sections must be considered.

The examiner's intended rejection was apparently a "102 rejection," despite the actual differences which exist between Lyle and the claimed composition. In the Examiner's Answer, the 1% K<sub>4</sub>O limitation of the claims was treated as follows:

The composition of Lyle would include the proportional limitation relationship of K<sub>2</sub>O and Na<sub>2</sub>O as recited in appellant's claim since it is noted in Table II, Composition A, that nepheline syenite is employed as the raw batch constituent for supplying K<sub>2</sub>O in the final glass composition A, Table I. In the analysis of nepheline syenite, K<sub>2</sub>O is present in amounts of more than 5%.

Therefore, in Lyle's composition, since .05 of the combined Na<sub>1</sub>O and K<sub>2</sub>O total is K<sub>2</sub>O, the amount of K<sub>2</sub>O is calculated to be about 1 percent of the total glass composition, thus falling within the range limitation of K<sub>2</sub>O (1-4%) recited in appellant's claims.

The fact that Lyle contains sulfur and carbon in addition to the components specified by the claims was not commented upon by the examiner.

The Board of Appeals affirmed the examiner but admitted that Lyle did not necessarily disclose a glass containing 1% Ko in stating:

We note that Lyle discloses, particularly in Example A (table II in column 8), that a substantial amount of nepheline syenite is employed in preparing the glass. Although it cannot be regarded as cartain as to exactly how much potassium is introduced into the glass composition thereby, there does not appear to be any doubt that the glass composition includes potassium. We find no evidence that here is any critical difference between the amount of potassium in the glass compositions of Lyle and the minimum of 1% specified in claim 11.

The board, as did the examiner, failed to comment upon the sulfur present in Lyle's composition. With regard to carbon, the board stated:

Lyle discloses that a very small amount of carbon, less than ½ of 1%, is employed in the preparation of his glass composition A. In our opinion,

it would not be expected that the presence of this small amount of carbon would substantially alter the electrical resistance of the glass composition. Claim 11 which recites "consisting essentially" the named ingredients does not exclude small amounts of other materials which do not change the essential character of the composition. In our opinion, it must also be considered that some of the charcoal employed by Lyle may be lost due to atmospheric exidation during the preparation of the final glass. In the absence of a factual showing of a critical difference in the electrical resistance of applicant's glass composition as compared to that of the compositions taught by Lyle, we are of the view that claim 11 does not patentably distinguish from the reference.

[1] Appellant contends that his claims are not anticipated by the Lyle reference because (1) Lyle's composition contains sulfur and carbon which are excluded from appellant's composition by the words "consisting essentially of" and (2) Lyle's composition does not meet the 1% Ko limitation recited in appellant's claims. We will first consider the carbon and sulfur question. Appellant and the solicitor agree that the issue is whether the introduction of sulfur and carbon would materially change the characteristics of appellant's insulating glass. The solicitor would put the burden of showing a material change on the appellant. The effect of "consisting essentially of" was considered in In re Janakirama-Rao, 50 CCPA 1212, 317 F.2d 951, 137 USPQ 893, where, as in the present case, the claims were directed to a glass composition and the reference contained some modifying components in addition to those claimed by appellant. The court found that appellant splass had no basic or novel characteristics and thus did not distinguish over the reference. Thus, here appellant has the burden of showing the basic or novel characteristics of his insulating glass. He has met his burden by pointing out in his specification and claims the great increase in resistance to perforation resulting from his composition.

The Board of Appeals and the solicitor contand that appellant has furnished

The Board of Appeals and the solicitor contend that appellant has furnished no evidence that a critical difference in appellant's emphasized characteristics would result from the introduction of small amounts of Lyle's coloring agents, charcoal and suifur. It is not clear what evidence they would require. The solicitor has noted that an affidavit which the board did not consider contains nothing significant on this issue. It may

implied that the Patent Office would require appellant to duplicate the Lyle lass and compare its resistance to perforation with that of appellant's glass. [2] In the total absence of evidence in the record to indicate that the amber class disclosed by Lyla would be excepted to have desirable electrical insulating properties, we can find no distification for placing the burden on siplicant to conduct experiments to determine the insulating properties of the solored glass disclosed by Lyla. Alticugh there are only very slight differences between the Lyla composition and that sought to be patented, we cannot assume that these small differences in capable of causing a difference in properties. Appellant, in showing just his glass has basic and novel properties (at least as far as the record is concerned), would appear to have met

pincerned), would appear to have met his burden.

Another difference between appelian's glass and the Lyle glass is the ElO containt. Claim 11 calls for 1 to E.K.O. Lyle uses nepheline syenite, K.O. Lyle uses nepheline syenite, K.O. containing rock, in forming his class. The amount of K.O in the nepheline syenite apparently may vary greatly and thus it is impossible to say fist how much K.O is present in the Lyle composition. Appellant contends that at least one type of nepheline symite will introduce only 0.5% K.O into the composition. The solicitor apparantly concedes that the amount of K.O is uncertain. His position is, however, that even 0.5% is enough to meet the claims because there is no proof that the range of 1 to 4% is critical. There is no indication in the record that the pasminer ever questioned the criticality of the range. The question was apparently first raised by the board. After the board's decision, appellant filed an affidavit attempting to establish the criticality of the 1-4% range. The board refused to consider the affidavit on the besis that no new rejection had been made and that the affidavit was not dispute that ruling here.

[8] In support of his position that in order for a claimed range to be crit-

dispute that ruling here.

[2] In support of his position that it order for a claimed range to be critical the range must be disclosed as being critical, the solicitor cites in re Bourdon, 44 CCPA 740, 240 F.2d 353, 112 GSPQ 323; In re Selmi et al., 33 CCPA 1487, 156 F.2d 98, 70 USPQ 197; In re Sritton, 28 CCPA 726, 115 F.2d 249, 47 USPQ 265; In re Honnig, 39 CCPA 740, 28 F.2d 191, 92 USPQ 135; In re Sheemaker, 23 CCPA 1033, 83 F.2d 268, 29 USPQ 209; and in re Greider, 29 CCPA 1279, 129 F.2d 568, 54 USPQ 139. In Bourdon, Britton and Shoemaker, the

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it would not be expected that in presence of this small amount of cabon would substantially alter in electrical resistance of the glass composition. Claim 11 which recites "camposition Claim 11 which recites "camposition control of the recites" camposition of the materials which in not change the essential character is the composition. In our opinion, if must also be considered that some the charcoal employed by Lyle make lost due to atmospheric exidation during the preparation of the fing glass. In the absence of a factual showing of a critical difference in the electrical resistance of applicant glass composition as compared to the of the composition satisfied by Lyle we are of the view that claim 11 does not patentably distinguish from the reference.

reference.

[I] Appellant contends that he claims are not anticipated by the Eyle reference because (1) Lyle's composition contains sulfur and carbon which are excluded from appellant's composition by the words "consisting essentially of and (2) Lyle's composition does not meat the 1% K.O limitation recited in appellant's claims. We will first conside the carbon and sulfur question. Appellant and the solicitor syree that the issue he whether the introduction of sulfur and carbon would materially change the characteristics of appellant's insulating glass. The solicitor would put the burden of showing a material change on the appellant. The effect of "consisting essentially of" was considered in In-Janakirama-Rso, 50 CCPA 1312, 3; F.2d 951, 137 USPQ 898, where, as in the present case, the claims were directed to glass composition and the reference contained some modifying components addition to those claimed by appellant. The court found that appellant's glashad no basic or novel characteristics subthus did not distinguish over the reference. Thus, here appellant has burden of showing the basic or novel characteristics of his insulating glass. He has met his burden by pointing of in his specification and claims the great increase in resistance to perforation resulting from his composition.

The Board of Appeals and the solidar contend that appellant has furnished no evidence that a critical difference in appellant's emphasized characteristic would result from the introduction small amounts of Lyle's coloring again charcoal and sulfur. It is not clear where evidence they would require. The solid itor has noted that an affidavit which board did not consider contain nothing significant on this issue. It may

be implied that the Patent Office would require appellant to duplicate the Lyle glass and compare its resistance to perferation with that of appellant's glass.

[2] In the total absence of syldence in the record to indicate that the amber glass disclosed by Lyle would be expected to have desirable electrical insulating properties, we can find no justification for placing the burden on applicant to conduct experiments to determine the insulating properties of the colored glass disclosed by Lyle. Although there are only very slight differences between the Lyle composition and that sought to be patented, we cannot assume that these small differences are incapable of causing a difference in properties. Appellant, in showing that his glass has basic and novel properties (at least as far as the record is concerned), would appear to have met his burden.

Another difference between appal-

concerned), would appear to have met his burden.

Another difference between appallan's glass and the Lyle glass is the K<sub>4</sub>O content. Claim 11 calls for 1 to 4% K<sub>4</sub>O. Lyle uses nepheline syenite, a K<sub>4</sub>O-containing rock, in forming his glass. The amount of K<sub>4</sub>O in the nepheline syenite apparently may vary greatly and thus it is impossible to say just how much K<sub>4</sub>O is present in the Lyle composition. Appellant contends that at least one type of nepheline syenite will introduce only 0.6% K<sub>4</sub>O into the composition. The solicitor apparently concedes that the amount of K<sub>4</sub>O is uncertain. His position is, however, that even 0.6% is enough to meet the claims because there is no proof that the range of 1 to 4% is critical. There is no indication in the record that the examiner ever questioned the criticality of the range. The question was apparently first raised by the board. After the board's decision, appellant filed an affidavit attempting to establish the criticality of the 1-4% range. The board refused to consider the affidavit on the basis that no new rejection had been made and that the affidavit was not filed in time. The appellant does not dispute that ruling here.

dispute that ruling here.

[8] In support of his position that in order for a claimed range to be critical the range must be disclosed as being critical, the solicitor cites In re Bourdon, 44 CCPA 740, 240 F.2d 353, 112 USPQ 323; In re Selmi et al., 38 CCPA 1187, 156 F.2d 96, 70 USPQ 197; In re Britton, 28 CCPA 726, 115 F.2d 249, 47 USPQ 255; In re Honnig, 39 CCPA 740, 193 F.2d 191, 92 USPQ 136; In re Shoemaker, 23 CCPA 1039, 83 F.2d 288, 29 USPQ 209; and In re Graider, 29 CCPA 1079, 129 F.2d 568, 54 USPQ 139. In Bourdon, Britton and Shoemaker, the

issue was obviousness. Since the issue here is anticipation under 35 U.S.C. 102, we do not feel that the language of those cases is applicable. In Selmi the claimed ranges of components in an alloy steel actually fell within the ranges of components of a prior art steel. This case is different because the claimed range actually differs from the prior art range. In Greider and Honnig, the prior art showed a product similar to that claimed and having the same alleged properties. In both cases, the court refused to attach any significance to a claimed range without a showing that the range caused an improvement over the prior art product. We do not have that situation here because there is no indication that the glass composition of Lyle has desirable electrical insulating properties. Thus, we do not feel that the cases relied on by the solicitor permit us to disregard the 1 to 4% limitation as immaterial.

We agree with the solicitor that there

to 4% limitation as immaterial.

We agree with the solicitor that there is little support in the record for the range. In fact, as the solicitor has pointed out, there is no evidence in the record that the application as originally filed specifically contained the 1 to 4% limitation. This attack, however, appears to be directed to the sufficiency of the disclosure. Since no rejection under 35 U.S.C. 112 was made by the examiner, that issue is not now before us.

The claimed composition contains 1

The claimed composition contains 1 to 4% KaO, no sulfur, no carbon, and possesses insulating properties which, as far as the record indicates, have never been known in the prior art. The Lyle reference composition contains a small amount but likely less than 1% KaO plus sulfur and carbon as essential components. It is an amber colored glass with no electrical insulating properties disclosed. In view of these many differences, we hold that the Lyle composition does not anticipate appellant's claims.

We do not feel that a rejection based upon the premise that the differences between appellant's glass and the Lyle glass are obvious can be sustained. Admittedly, the differences are small, but Lyle is devoid of any suggestion of a glass embodying these differences. The examiner has failed to suggest any reason for omitting carbon and sulfur from the Lyle glass. If one were making a colorless glass-free of carbon and sulfur, there would be little reason for using the Lyle formula since it was primarily designed to enhance color atability. In the absence of any showing why it would be obvious to modify Lyle's glass, a "108 rejection" must be reversed.

Our discussion has been directed primarily to claim 11, but the reasoning applies also to claim 5 which is narrower than claim 11 and which the board treated as not patentably distinct from claim 11.

The decision of the Board of Appeals is thus reversed.

### Patent Office Trademark Trial and Appeal Board

INFANSEAT COMPANY V. HANOVER MANUFACTURING COMPANY Decided Sept. 10, 1964

### TRADEMARKS

Cancellation—Mark and use of parties
—In general (§ \$7.1771)

### Registration—Effect (§ 67.747)

Registrant's registration constitutes righterants registration constitutes prima facie evidence of its use of registered mark for named goods since filing date of its application therefor; therefore, cancellation petitioner has burden to establish in the first instance continuous use of term as a trademark for its goods since at least prior to that data.

### 2. Evidenco-Of use (§ 67.839)

Priority of use of trademark may be established by uncorroborated testimony of a single witness, if testimony is sufficiently circumstantial, definite, and otherwise convincing; however, testimony is insufficient where it is general in character and is not corroborated by any documentary or physical exhibits.

Trademark cancellation No. 8,049 by Infanceat Company against Hanover Manufacturing Company, Registration No. 861,659, issued May 18, 1958, Petition digminsted. diamissed.

ROBERT W. B. DICKERSON, MURRAY ROB-INSON, CARL B. FOX, JR., NED L. CON-LEY, and JAMES A. BARGFREDE, all of Houston, Tex., for Infanseat Company. CLARENCE A. O'BRIEN & HARVEY B. JACOBSON, Washington, D.C., for Hanover Manufacturing Company.

Before LEACH, WALDSTREICHER, and LEE-KOWITZ, Members,

LEACH, Member.

Infanseat Company has petitioned to

cancel a registration of the mark "BABY SITTER" and certain merely a ncillary geographically descriptive working and design matter for an infant's chair with handles! This registration issued May 13, 1958 to Hanover Manufesturing Company from an arm

tration issued May 13, 1958 to Hanover Manufacturing Company from an application filed September 11, 1957.

It is in effect alleged in the petition that petitioner and petitioner's predecessors in business have for many years manufactured and sold in interstate commerce beby carriers under the trademark "BABY SITTER"; that petitioner or one of its predecessors first used the said trademark for baby carriers on or before November 3, 1958; and that respondent's mark so resembles that of petitioner as to be likely, when applied to respondent's goods, to cause confusion or mistake or to deceive.

The record in this case consists of

The record in this case consists of the pleadings, respondent's registration, and testimony and documentary and physical exhibits adduced in behalf of petitioner.

petitioner.

[1] Respondent's registration constitutes prims facie evidence of its use of the mark "BABY SITTER" for infant's chairs since September 11, 1957, the filling date of its application therefor, American Throwing Company, Inc. v. Famous Bathrobe Company, Inc., 116 USPQ 156 (CCPA, 1957). Petitioner, therefore, has here been under the burden of establishing in the first instance continuous use of "BABY SITTER" as a trademark for its baby carriers since at least prior to that date.

The president of the petitioner's cor-

The president of the petitioner's corporation, the only witness offered in its behalf, has testified that petitioner its behalf, has testified that petitioner through predecessors in business, i.e., Infanseat Company, Inc., a corporation of which he was also president, and Eldora Millwork and Manufacturing Company and Infanseat Company, a copartnership of which he was a partner, has been engaged in the sale of a combination beby carrier and baby seat since 1951, and that petitioner and its said predecessors have, since November 8, 1952, continuously applied the mark "INFANSEAT" and the two-word mark "BABY SITTER" to every container in which its product has been container in which its product has been marketed. This testimony, however, is quite general in character, and, at least insofar as it relates to the use of "BABY SITTER" by petitioner or its predecessors since a date prior to respondent's record date, it is not corrob-orated by any of the domumentary or physical exhibits made of record herein by petitioner. For example, copies of

1 Reg. No. 681,559.

48 USPQ

In re Diamond :

sales invoices which are said to represent sales of petitioner's product under the mark "BABY SITTER" on November 3, 1953 refer only to the mark "INFANSEAT"; a copy of a bill resisted in October of 1953 by the first petitioner's predecessors for the puriasse of a die which is said to have been used by it to imprint the mark "BABY SITTER" on the cartons for its product refers only to the mark "INFANSEAT"; an assignment which improrts to transfer title to a number of patents and trademarks from Infanseat Company, Inc. to petitioner of patents and trademarks from Infanseat Company, Inc. to petitioner makes no reference to the mark BABY SITTER"; and another assignment which purports to transfer titls to the mark "BABY SITTER" from the first of petitioner's predecessors to the Becond was executed on June 10, 1963, and the subsequent to the institution of this proceeding.

[2] It is of course recognized that priority of use of a trademark may be restablished by the uncorroborated testimony of a single witness, if his testimony is sufficiently circumstantial, de-

firmony is sufficiently circumstantial, de-finite and otherwise convincing. In the compute and otherwise convincing. In the invesent case, the testimony of petitionin's president is considered to fall far thort of meeting these requirements, and hence to be quite insufficient as a proof of petitioner's use of "BABY SITTER" as a trademark since prior to record data of use respondent's record date of use.

Decision The petition is dismissed.

Patent Office Trademark Trial and Appeal Board

In re DIAMOND NATIONAL CORPORATION Decided Sept. 10, 1964

### TRADEMARKS

Marks and names subject to ownership -Names-Corporations or partnerships (§ 67.5213)

ships (§ 67.5213)

Although "Gardner" is part of trade tiame "The Gardner Division," that, in itself, does not necessarily preclude "Gardner" from being a trademark as well, since a name or part of a name of corporation or division thereof may be trademark, trade name, or both; however, considering that label's most prominent feature is a symbol trademark, that